

REMARKS

Claims 1-17 and new claims 23-34 are pending in this application. New claims 23-34 have been added to recite additional embodiments of the invention, which are supported by the present Specification as follows:

Claim	Specification
23-24	Page 6, lines 2-16
25	Page 9, lines 16-18
26-27	Page 6, lines 3-10
28	Page 7, lines 30-31
29	Page 7, lines 23-25
30	Page 5, lines 2-9 and Page 9, lines 6-18
31-32	Page 6, lines 3-10
33	Page 7, lines 30-31 and Page 8, lines 11-12 and 13-18
34	Page 7, lines 23-25

As no new matter has been added by the amendments herein, Applicant respectfully requests entry of these amendments at this time.

RESTRICTION REQUIREMENT

In response to the Restriction Requirement, Applicant hereby confirms the election of Group I (claims 1-17) for prosecution in this application. As a result of the election of claims drawn to a golf ball, Applicant has canceled method claims 18-22 of Group II and added new claims 23-34 drawn to a golf ball.

THE PRESENT INVENTION

The present invention is directed to a multilayer golf ball with at least a portion of the ball molded from a staged resin film, *i.e.*, a partially cured thermosetting resin composition (Page 5, lines 2-5). The partially cured resin composition that is used to form the golf ball portion is described in the Specification as initially having unreacted groups remaining (Page 9, lines 6-18). The portion may be further cured or post-cured after forming so that eventually all reactive groups in the portion are reacted (Page 9, lines 16-18). The extent to which the crosslinkable resin is partially cured may be based on hardness, *i.e.*, the SRF may have a Shore D hardness that is about 10 percent to about 80 percent of the resin's ultimate hardness after total cure (Page 6, lines 11-13). Because the SRF contains partially cured

crosslinkable resins, an SRF provides additional alternatives in handling and molding than those provided with an uncured material or totally cured material (Page 6, lines 26-27).

As explained in greater detail below, the claimed invention, in its entirety, is not even suggested in the references relied upon by the Examiner.

THE REJECTION UNDER 35 U.S.C. § 103

Claims 1-14 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,730,665 to Shimosaka *et al.* in view of U.S. Patent No. 4,847,319 to Bandlish. In addition, claim 15 was rejected as obvious over Shimosaka '665 in view of Bandlish and further in view of U.S. Patent No. 5,749,796 to Shimosaka *et al.* Finally, claims 16 and 17 were rejected as obvious over the combination of Shimosaka '665, Bandlish, and Shimosaka '796 further in view of U.S. Patent No. 6,068,561 to Renard. Applicant respectfully disagrees with these rejections. As detailed below, there is no suggestion or motivation to make the proposed modification to Shimosaka '665 to arrive at the present invention because to do so would render Shimosaka '665 unsatisfactory for its intended purpose. The remaining cited references do not cure the deficiencies of Shimosaka '665 for the reasons described below.

Shimosaka '665 generally describes a golf ball with thermocompression molded intermediate and cover layers with "smooth mold release". *See, e.g.*, Col. 1, lines 40-42 and Col. 2, lines 4-12. The invention is primarily directed to eliminating the inconvenience of the cover material sticking to the mold and, since the outermost cover may serve as a finish layer, the invention eliminates a need for finish treatment to form a coating layer on the cover surface after molding (Col. 4, lines 57-63). According to Shimosaka '665,

[t]his process prevents the dimple geometry precision from being degraded due to ineffective mold release after molding and ensures efficient manufacture of golf balls having a cover of better performance.

Col. 1, line 66 to Col. 2, line 3. Given this explicit purpose of providing improved mold release, a skilled artisan would not modify Shimosaka '665 by using a partially cured tacky or sticky material.

In contrast, independent claim 1 of the present invention recites a golf portion formed from a staged resin film, which is defined in the Specification as a partially cured thermosetting resin composition (Page 5, lines 2-4). As known to those of ordinary skill in the art, a partially cured composition, such as the staged resin film of the present invention, will remain tacky or

sticky to the touch. Therefore, the partially cured staged resin film of the present invention will not provide a “smooth mold release” as required by Shimosaka ‘665.

Because of this fundamental difference in cure state, one would have to ignore the primary objective of Shimosaka ‘665 in order to arrive at the present invention. The MPEP makes clear, however, that a reference cannot be modified or combined in a manner that would render it unsatisfactory for its intended purpose. *See* MPEP § 2143.01 at 2100-124-125 (“If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.”). In this case, the modification to Shimosaka ‘665 proposed by the Examiner would defeat its stated objective. For these reasons, Applicant respectfully submits that Shimosaka ‘665 does not disclose or even suggest the present invention.

The Examiner relied on Bandlish for its disclosure of a polyurethane composition comprising a blocked isocyanate, a ketone or aldehyde. *See, e.g.*, Office Action at page 3. However, this disclosure does not remedy the deficiencies of Shimosaka ‘665 with respect to the presently claimed invention. In fact, Bandlish teaches that his disclosed compositions would “adhere tenaciously to a wide variety of surfaces such as glass, aluminum, concrete, marble, and steel.” Col 1, lines 32-34. Bandlish further explains that the disclosed compositions typically would adhere to surfaces after only a short period of time. *See, e.g.*, Col. 2, lines 61-65. As most golf ball molds are made from metal material, the Bandlish composition would likely adhere to the mold and defeat the stated “smooth mold release” objective of Shimosaka ‘665. Thus, one of ordinary skill in the art would have had no reasonable expectation of success in using the Bandlish composition in combination with Shimosaka ‘665 in light of the technological incompatibilities.

Furthermore, even if it were possible to combine Shimosaka ‘665 and Bandlish, *arguendo*, “there must be a suggestion or motivation in the references to do so.” *See In re Mills*, 916 F.2d 680, (Fed. Cir. 1990); *See also* MPEP § 2143.01 at 2100-124 (“the mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” (emphasis in original)). Bandlish does not even suggest a method of molding a portion of a golf ball. In fact, Bandlish is completely silent on the use of his composition in any manner related to the golf industry. Shimosaka ‘665 likewise makes no reference to using a sealant composition such as the one disclosed in Bandlish. Therefore, in light of the previously discussed technological incompatibilities and the lack of any suggestion to use the Bandlish composition in a golf ball

application, a skilled artisan would have had no motivation to combine Bandlish with Shimosaka '665, nor have any expectation that such a combination would be successful.

Moreover, neither Shimosaka '796 nor Renard cure the deficiencies of Shimosaka '665 and Bandlish with respect to claims 15-17. In particular, Shimosaka '796 is relied on by the Examiner for the wound ball disclosure, however, Shimosaka '796 does not provide any motivation to one of ordinary skill in the art to ignore the primary purpose of Shimosaka '665 to provide "smooth mold release" to arrive at the presently claimed invention. In addition, Renard generally describes thin core layers, but also does not provide the requisite motivation to completely disregard the teachings of Shimosaka '665 to arrive at the present invention.

In view of the foregoing, Applicant respectfully submits that no combination of Shimosaka '665, Bandlish, Shimosaka '796, or Renard renders the present invention. Thus, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejections based thereon.

NEW CLAIMS ADDED WITH THIS RESPONSE

Applicant respectfully submits that new claims 23-34 are also not anticipated by or rendered obvious by any of the cited references for the similar reasons as discussed above. In particular, no combination of the cited references discloses a golf ball portion formed from a partially cured thermosetting resin composition having a first hardness when formed and a second hardness after further curing (claims 23-29). In addition, the cited references do not disclose or suggest a golf portion formed from a thermosetting resin composition having two stages, wherein at least a portion of the reactive groups remain unreacted (first stage) until after forming the golf ball portion (second stage), as presently recited in new claims 30-34.

CONCLUSION

All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicant invites the Examiner to contact the undersigned attorneys to discuss any remaining issues.

A Fee Sheet Transmittal is submitted herewith to pay for the additional claims added with this Response. No other fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Swidler Berlin Shereff Friedman, LLP Deposit Account No. 195127, Order No. 20002.0096.

Respectfully submitted,
SWIDLER BERLIN SHEREFF FRIEDMAN, LLP

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By:


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APPENDIX A
MARKED UP VERSION OF THE AMENDED CLAIMS

Please cancel claims 18-22 and add the following new claims:

23. (New) A golf ball comprising at least one portion formed from a partially cured thermosetting resin composition, wherein the partially cured thermosetting resin composition has a first hardness when forming the at least one portion and a second hardness after forming and further curing, and wherein the first hardness is about 10 percent to about 80 percent of the second hardness.
24. (New) The golf ball of claim 23, wherein the first hardness is about 20 percent to about 60 percent of the second hardness.
25. (New) The golf ball of claim 23, wherein the at least one portion is further cured by ultraviolet, electron beam, gamma, heat, time, or a combination thereof.
26. (New) The golf ball of claim 23, wherein the resin composition comprises polyurethane, polyurea, epoxy, diene rubber, unsaturated polyester, silicone, or mixtures thereof.
27. (New) The golf ball of claim 26, wherein the resin composition comprises a partially or totally blocked isocyanate, an interpenetrating polymer network, an isocyanate compound comprising a ketimine, or mixtures thereof.
28. (New) The golf ball of claim 23, wherein the resin composition further comprises at least one material that alters moisture or vapor transmission through the golf ball.
29. (New) The golf ball of claim 23, wherein the resin composition is part of a laminate.
30. (New) A golf ball comprising at least one portion formed from a thermosetting resin composition having at least a first stage and a second stage, wherein the first stage has a first number of reacted groups, wherein the second stage has a second number of reacted groups

greater than the first number of reacted groups, and wherein the second stage occurs after the at least one portion is formed.

31. (New) The golf ball of claim 30, wherein the resin composition comprises polyurethane, polyurea, epoxy, diene rubber, unsaturated polyester, silicone, or mixtures thereof.

32. (New) The golf ball of claim 31, wherein the resin composition comprises a partially or totally blocked isocyanate, an interpenetrating polymer network, an isocyanate compound comprising a ketimine, or mixtures thereof.

33. (New) The golf ball of claim 30, wherein the resin composition further comprises at least one material that alters moisture or vapor transmission through the golf ball, increases adhesion between incompatible golf ball layers, alter the specific gravity of the golf ball, or a combination thereof.

34. (New) The golf ball of claim 30, wherein the resin composition is part of a laminate.